

Message Text

UNCLASSIFIED

PAGE 01 STATE 182246
ORIGIN NASA-02

INFO OCT-01 EUR-12 ISO-00 OES-09 SIG-03 PM-05 DODE-00
/032 R

DRAFTED BY NASA/LIC-17/DTGREGORY:SS
APPROVED BY OES/APT/SA:IMPIKUS
NASA/LIC-17/BGGARNER EUR/NE:GREY
NASA/LID-18/LEJONES EUR/SE:JRATIGAN
NASA/ST-5/DPCAUFFMAN
NASA/S-1/NWHINNERS
NASA/LIC-17/WGBASTEDO
EUR/NE:DWOOFLEY
EUR/NE:RTHOMPSON EUR/WE:BODE
EUR/CAN:RROUSE

-----100608 192059Z /64

R 191510Z JUL 78
FM SECSTATE WASHDC
TO AMEMBASSY OTTAWA
AMEMBASSY COPENHAGEN
AMEMBASSY REYKJAVIK
AMEMBASSY LONDON
AMEMBASSY ROME
AMEMBASSY ATHENS
INFO AMEMBASSY STOCKHOLM
AMES RESEARCH CENTER ATTN SEM
KEFLAVIK AIRPORT ICELAND
MILDENHALL AIR BASE ENGLAND
SONDRESTROM AIR BASE GREENLAND

UNCLAS STATE 182246

E.O. 11652:N/A

TAGS: TSPA

SUBJECT: PROJECT PORCUPINE - NASA REQUEST FOR
UNCLASSIFIED

UNCLASSIFIED

PAGE 02 STATE 182246

----- AIRCRAFT CLEARANCE

REF: (A) STATE 19668, JAN. 18, 1977
----- (B) STATE 21318, JAN. 28, 1976
----- (C) STATE 41660, FEB. 21, 1976
----- (D) ATHENS 2015, MAR. 4, 1976

1. AS PART OF NASA/GERMAN COOPERATIVE PROGRAM (PROJECT PORCUPINE), NASA IS PLANNING THIRD EXPEDITION TO GREECE. (THE FIRST TWO OCCURRED IN MARCH 1976 AND MARCH 1977.)

2. PROGRAM INVOLVES STUDY OF THE COUPLING BETWEEN EARTH'S MAGNETOSPHERE AND IONOSPHERE DESCRIBED IN GREATER DETAIL REF C. PROJECT IS DIRECTED BY MAX PLANCK INSTITUTE FUR PHYSIK, USING U.S./GERMAN JOINTLY DEVELOPED ARIES SOUNDING ROCKET.

3. TWO ARIES SOUNDING ROCKETS, EACH EQUIPPED WITH 11 EXPERIMENTS, WILL BE LAUNCHED FROM ESRANGE, SWEDEN BETWEEN SEPT. 7 - OCT 15, 1978. NASA'S LEAR JET AIRCRAFT WILL PARTICIPATE IN BARIUM ION JET EXPERIMENT IN WHICH TWO CANNISTERS, EACH CONTAINING BARIUM SHAPED-CHARGE, WILL BE EJECTED FROM SOUNDING ROCKET AND EXPLODED AT APPROXIMATELY 450 KM. JETS WILL BE TRAPPED IN EARTH'S MAGNETIC FIELD AND WILL TRAVEL ALONG MAGNETIC LINES OF FORCE UNTIL THEY RE-ENTER EARTH'S ATMOSPHERE AT CONJUGATE POINT IN ANTARCTIC. JETS RAPIDLY BECOME SO FAINT THEY CAN ONLY BE OBSERVED WITH MOST SENSITIVE OPTICAL INSTRUMENTS EQUIPPED WITH NARROW INTERFERENCE FILTERS. PLANS CALL FOR NASA'S LEAR JET, EQUIPPED WITH TWO OF THESE OPTICAL SYSTEMS, TO BE BASED IN ATHENS, GREECE, AND FLY ALONG FLIGHT PATH THAT WILL PROVIDE CONTINUOUS OPTICAL COVERAGE OF BARIUM TRAIL AGAINST UNCLASSIFIED

UNCLASSIFIED

PAGE 03 STATE 182246

STAR BACKGROUND FOR APPROXIMATELY FIRST 1,000 SECONDS AFTER RELEASE.

4. BARIUM EXPERIMENT WILL MAP MAGNETIC FIELDS, STUDY GENERATION OF ALFVEN WAVES, VARIATIONS OF ION VELOCITY PARALLEL TO MAGNETIC FIELD, AND PLASMA DRIFTS UP TO ALTITUDES OF APPROXIMATELY 20,000 KM.

5. AIRCRAFT IS U.S. PUBLIC LAW AIRCRAFT NASA-OWNED AND OPERATED LEAR JET MODEL 24B, S/N102, REGISTRATION NUMBER N 705NA; CALL SIGN NASA 705.

6. AIRCRAFT WILL STAGE FROM ATHENS INTERNATIONAL AIRPORT FOR A SIX-WEEK PERIOD COMMENCING SEPT. 1, 1978. ALTERNATE PLAN TO STAGE FROM HELLENIKON AFB IF LOCAL AIR CARRIERS CANNOT FURNISH NECESSARY GROUND FACILITIES TO AIR CONDITION AIRCRAFT AND EXPERIMENT ELECTRONICS DURING EXTREMELY HOT WEATHER IN SEPT./OCT.

7. REHEARSALS, COORDINATED WITH ESRANGE/KIRUNA, ARE SCHEDULED TO BEGIN SEPT. 5, 1978. REHEARSALS WILL ALLOW CREW TO COORDINATE FLIGHT ROUTE WITH LOCAL AIR TRAFFIC

CONTROL AGENCIES AND ALLOW EXPERIMENTERS TO CHECK OUT OPTICAL EQUIPMENT. AIRCRAFT WILL THEN BE ON STANDBY EVERYDAY DURING TWO LAUNCH WINDOWS, SEPT. 7-14 AND SEPT. 24 - OCT. 14. LAUNCHING WILL BE MADE DURING EARLY EVENING (APPROX. 1830 UT) WITH WINDOW OF APPROXIMATELY TWO HOURS IN DURATION. PROFICIENCY FLIGHTS SIMULATING OBSERVATIONS WILL BE MADE EVERY SECOND DAY TO KEEP ALL SYSTEMS AND CREWS AT PEAK READINESS.

8. FOR MISSION AND REHEARSALS, AIRCRAFT WILL FLY WESTWARD (20 MINUTES) TOWARD GENERAL AREA OF PATRAI, GREECE (ARAXOS AIRFIELD), CLIMBING TO OBSERVING ALTITUDE OF 41,000 FEET (12.5KM). AIRCRAFT WILL THEN LOITER AT THIS ALTITUDE UP TO 90 MINUTES IF HOLDS IN LAUNCH UNCLASSIFIED

UNCLASSIFIED

PAGE 04 STATE 182246

WINDOW ARE REQUIRED. AIRCRAFT WILL THEN DEPART ON HEADING OF 280 DEGREES AND VIDEO RECORD BARIUM ION TRAILS AS THEY MOVE SOUTHWARD. ROCKET LAUNCH WILL RELEASE TWO BARIUM ION CLOUDS SEPARATED IN TIME BY 150 SECONDS. THEY WILL BE OBSERVED FROM HORIZON TO 65 DEGREES FOR 1,050 SECONDS (17.5 MINUTES) DURING WHICH TIME AIRCRAFT WILL HAVE TRAVELLED 122 MILES (196 KM). AIRCRAFT WILL THEN RETURN TO ATHENS USING ARAXOS FIELD, PATRAI, GREECE AS ALTERNATE.

9. EXPERIMENTAL PAYLOAD CONSISTS OF TWO SEPARATE VIDEO SYSTEMS VIEWING OUT STARBOARD WINDOW. PRIMARY SYSTEM FURNISHED BY U. OF ALASKA CONSISTS OF IMAGE ORTHICON CAMERA, ASSOCIATED ELECTRONICS AND VIDEO RECORDER. NASA AMES RESEARCH CENTER WILL PROVIDE GYRO-STABILIZED MIRROR SYSTEM (HELIOSTAT) AND INERTIAL NAVIGATION SYSTEM TO RECORD LATITUDE, LONGITUDE AND HEADING. VIDEO SYSTEM HAS 15 DEGREE FIELD OF VIEW AND WILL SCAN FROM 25 DEGREES TO 60 DEGREES FROM HORIZONTAL.

10. AIRCRAFT MAINTENANCE CONTRACTOR, NORTHROP SERVICES, INC., WILL ARRANGE WITH LOCALLY-BASED AIR CARRIER TO PROVIDE AIRCRAFT SUPPORT SERVICES DURING MISSION.

11. COMMUNICATIONS LINK WILL BE ESTABLISHED BETWEEN KIRUNA AND AIRCRAFT BASE IN ATHENS BY COMMERCIAL TELEPHONE. NASA WILL WORK WITH LOCAL GREEK AUTHORITIES TO ARRANGE GROUND-TO-GROUND LINK HF OR VHF RADIO BETWEEN AIRPORT AND AIRCRAFT.

12. AIRCRAFT IS RANGE LIMITED AND WILL REQUIRE MULTIPLE UNCLASSIFIED

UNCLASSIFIED

PAGE 05 STATE 182246

STOPS ENROUTE TO AND FROM GREECE. FOLLOWING IS PLANNED ITINERARY TO GREECE. IT WOULD BE REVERSED ON RETURN. NO RETURN DATES CAN BE SUPPLIED AT THIS TIME AS DEPENDENT ON LAUNCH

LOCATION	DEPART O/A	REMARKS
----------	------------	---------

MALSTROM, AFB, U.S.	29 AUG.	REFUEL
FORT CHURCHILL, CANADA	29 AUG.	REFUEL & RON

FROBISHER A.B., CANADA	30 AUG.	REFUEL
SONDRESTROM A.B., GREENLAND	30 AUG.	REFUEL & RON

KEFLAVIK NABSTA, ICELAND	31 AUG.	REFUEL
MILDENHALL, U.K.	31 AUG.	REFUEL & RON

ROME, ITALY	1 SEPT.	REFUEL
-------------	---------	--------

ATHENS, GREECE	1 SEPT.-OCT 14	STAGE
----------------	----------------	-------

13. EACH LANDING SITE MUST BE CAPABLE OF SUPPLYING 600 GALLONS OF JP-4 OR JP-5 FUEL AND FUEL ADDITIVE QUOTE PRIST UNQUOTE. POWER CART CURRENT LIMITED TO 900 AMPS REQUIRED FOR STARTING ENGINES. HANGAR FACILITIES WILL BE REQUIRED BETWEEN AND INCLUDING FORT CHURCHILL AND KEFLAVIK.

14. EXPEDITION TEAM ACCOMPANYING AIRCRAFT WILL CONSIST OF APPROXIMATELY 12 MEMBERS. TWO PILOTS AND CREW CHIEF WILL BE ON BOARD DURING FERRY FLIGHTS. ALL OTHERS WILL FLY COMMERCIALY TO GREECE. ALL ARE U.S. CIVILIANS WITH NECESSARY PASSPORTS/VISAS.

15. AIRCRAFT AND EXPERIMENTAL EQUIPMENT CAN BE VIEWED BY REPRESENTATIVES OF HOST GOVERNMENTS AT ANY PROPOSED LANDING SITE DURING FERRY FLIGHT AND IN GREECE.

16. EXPERIMENTAL EQUIPMENT WILL NOT REPEAT NOT BE

UNCLASSIFIED

UNCLASSIFIED

PAGE 06 STATE 182246

OPERATED DURING FERRY FLIGHTS.

17. PILOT WILL FILE INTERNATIONAL FLIGHT PLANS.

18. DATA WILL BE MADE AVAILABLE IN FORM OF PRODUCT TAPES TO HOST GOVERNMENT ON REQUEST.

19. FOR EACH STOP ENROUTE CANADA, GREENLAND, ICELAND, U.K., ITALY AND GREECE: PLEASE ASCERTAIN AVAILABILITY OF FUEL AND FACILITIES PARA 12 ABOVE AND ADVISE.

20. FOR ALL ACTION ADDRESSEES: PLEASE OBTAIN APPROPRIATE LANDING AND OVERFLIGHT CLEARANCES FOR PERIOD 29 AUGUST - OCTOBER 20 AND ADVISE.

21. FOR ATHENS: PLEASE IDENTIFY CONTACT POINT IN EMBASSY FOR THIS PROJECT.

22. FOR STOCKHOLM: ALL ARRANGEMENTS FOR ROCKET LAUNCHES ARE BEING HANDLED BY MAX PLANCK INST. FOR PHYSIK AND NO EMBASSY ACTION REQUIRED AT LEAST FOR PRESENT.

23. NASA AND NASA AMES RESEARCH CENTER SHOULD BE INFO ADDRESSEES ON ALL REPLIES. CHRISTOPHER

UNCLASSIFIED

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01 jan 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: SPACE PROGRAMS
Control Number: n/a
Copy: SINGLE
Draft Date: 19 jul 1978
Decaption Date: 01 jan 1960
Decaption Note:
Disposition Action: n/a
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01 jan 1960
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1978STATE182246
Document Source: CORE
Document Unique ID: 00
Drafter: 17/DTGREGORY:SS
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Expiration:
Film Number: D780296-1083
Format: TEL
From: STATE
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1978/newtext/t19780742/aaaabjfy.tel
Line Count: 241
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 9abab370-c288-dd11-92da-001cc4696bcc
Office: ORIGIN NASA
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 5
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: 78 STATE 19668
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 29 mar 2005
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: N/A
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 1954314
Secure: OPEN
Status: NATIVE
Subject: PROJECT PORCUPINE - NASA REQUEST FOR UNCLASSIFIED UNCLASSIFIED
TAGS: TSPA
To: OTTAWA COPENHAGEN MULTIPLE
Type: TE
vdkgvwkey: odbc://SAS/SAS.dbo.SAS_Docs/9abab370-c288-dd11-92da-001cc4696bcc
Review Markings:
Sheryl P. Walter
Declassified/Released
US Department of State
EO Systematic Review
20 Mar 2014
Markings: Sheryl P. Walter Declassified/Released US Department of State EO Systematic Review 20 Mar 2014